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encoded at the first quantization level. Support for this feature can be found in the specification at least at page 7, lines 9-13. Base claims 4, 7, 11, and 14 have similar amendments.

#### Summary of the Rejections:

(1) Claims 1-16 stand rejected under 35 U.S.C.§103(a) as allegedly being obvious over the combination of Stenger (DE 36 08 489A1) and Katata et al (U.S. 5,815,601, hereafter "Katata").

It is respectfully submitted that the combination of Stenger and Katata, fails to show, inter alia, suggest or motivate an artisan to provide an encoder as instantly claimed, so that an encoder coupled to the DCT block classifier which encodes the DCT blocks having the threshold amount of foreground information with a first level of quantization and which encodes the DCT blocks having less than the threshold amount of foreground information as background information at a second lower quantization level, wherein at least a majority of a bandwidth is encoded at the first quantization level.

The combination of Stenger and Katata thus would not have made any of the instant claims obvious over the combination. Applicants respectfully submit that the disclosure of a coding parameter adjusting section 104 by

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Katata does not in any way teach that a majority of a bandwidth is encoded at the first quantization level. Nor does the combination of Stenger and Katata provide any suggestion, teaching, motivation to modify such that the claimed invention would have been obvious to a person of ordinary skill in the art.

Applicants note that as held by the Court of Appeals for the Federal Circuit regarding obviousness type rejections:

The mere fact that the prior art may be modified in the same manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

In re Fritch, 972 F.2d 1260, 1266, 23 USPQ 2d,1780,
1783-84 (Fed. Cir. 1992).

Accordingly, Applicants respectfully submit that none of the instant claims would have been suggested to the artisan as an obvious modification over the teachings of the combination of Stenger and Katata. Reconsideration and withdrawal of this ground of rejection are respectfully requested.

For all the foregoing reasons, it is respectfully submitted that all of the present claims are patentable in view of the cited reference. A Notice of Allowance is respectfully requested.

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Should the Examiner deem that there are any issues that may be best resolved by telephone communication, please contact Applicant's undersigned Attorney at the number listed below.

No fees are believed to be due at this time.

Respectfully submitted, Dan Piotrowski

Registration No. 42,079

By: Steve Cha

Attorney for Applicant Registration No. 44,069

Date: November 4, 2002

Mail all correspondence to:
Dan Piotrowski, Registration No. 42,079
US PHILIPS CORPORATION
580 White Plains Road
Tarrytown, NY 10591
Phone: (914) 333-9624

Phone: (914) 333-9624 Fax: (914) 332-0615

#### Enclosure:

Version with Markings

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Kiran CHAPALI et al. ART UNIT: 2613

SERIAL NO.: 09/196,574

EXAMINER : Richard J. Lee

FILED : Nov. 20, 1998

FOR : EXTRACTION OF FOREGROUND INFORMATION FOR VIDEO

CONFERENCING

### VERSION WITH MARKINGS SHOWING CHANGES MADE

Sir:

In response to the Final Office Action dated September 17, 2002, please note the marked changes to the above-identified application as follows:

### In the Claims:

Please amend the claims as follows:

(Twice Amended) An image processing device,
 comprising:

an input which receives a stereo pair of images;

a foreground extractor coupled to the input which compares location of like pixel information in each image to determine which pixel information is

foreground pixel information and which pixel information is background pixel information;

a DCT block classifier coupled to the foreground extractor which determines which DCT blocks of at least one of the images contain a threshold amount of foreground information; and

an encoder coupled to the DCT block classifier which encodes the DCT blocks having the threshold amount of foreground information with a first level of quantization and which encodes the DCT blocks having less than the threshold amount of foreground information as background information at a second lower quantization level, wherein at least a majority of a bandwidth is encoded at the first quantization level.

4. (Amended) An image processing device, comprising:

an input which receives a stereo pair of images;

a foreground extractor which detects foreground pixel information from the stereo pair of images; and

an encoder coupled to the foreground extractor which encodes the foreground pixel information at a first high level of quantization and which encodes background pixel information at a second lower level of

quantization, wherein at least a majority of a bandwidth is encoded at the first high level of quantization.

- 7. (Amended) An image processing system, comprising:
- a stereo pair of cameras for taking a stereo pair of images;
- a foreground extractor which detects foreground pixel information from the stereo pair of images; and

an encoder coupled to the foreground extractor which encodes the foreground pixel information at a first high level of quantization and which encodes background pixel information at a second lower level of quantization; wherein at least a majority of a bandwidth is encoded at the first quantization level.

8. (Amended) A method of encoding a stereo pair of images, comprising:

receiving the stereo pair of images;

extracting foreground information from the stereo pair of images; and

encoding the foreground information at a first higher quantization level and encoding background information of the stereo pair of images at a second

lower quantization level; wherein at least a majority of a bandwidth is encoded at the first higher quantization level.

- 11. (Amended) Computer-executable process steps to process image data from a stereo pair of images, the computer-executable process steps being stored on a computer-readable medium and comprising:
- a foreground extracting step to detect foreground pixel information from the stereo pair of images; and

an encoding step for encoding foreground pixel information of at least one image at a first higher quantization level and for encoding background pixel information of the at least one image at a second lower quantization;

wherein at least a majority of a bandwidth is encoded at the first quantization level.

- 14. (Amended) An apparatus for processing a stereo pair of images, the apparatus comprising:
  - a memory which stores process steps; and
- a processor which executes the process steps stored in the memory so as (i) to extract foreground

from the stereo pair of images and (ii) to encode the foreground information at a first high level of quantization and to encode background at a second low level of quantization, wherein at least a majority of a bandwidth is encoded at the first quantization level.